

WHAT IS CLAIMED IS:

1. An ink cartridge for use with ink and detachable from an image forming apparatus that forms an image using the ink, comprising:
an ink tank that stores ink, an outer wall of the ink tank is permeable to light;
and
a prism disposed on the outer wall of the ink tank and that contacts the ink, the prism being inclined downwardly with respect to a vertical axis.
2. The ink cartridge according to claim 1, further comprising:
an inner wall disposed inside the ink tank and that divides the ink tank; and
a porous member that is accommodated inside of the inner wall, wherein the prism is inclined with respect to the inner wall.
3. A printing apparatus that can mount the ink cartridge claimed in claim 2, comprising:
an irradiator that irradiates the prism with light;
a photoreceptor that receives reflected light of the light irradiated by the irradiator; and
a controller that determines whether an amount of the reflected light received by the photoreceptor is larger than or equal to a predetermined amount.
4. The printing apparatus according to claim 3, further comprising a counter that counts and stores the number of times of ink ejection from the cartridge, the counter starts counting when the amount of the reflected light reaches or exceeds the predetermined amount.
5. The printing apparatus according to claim 4, wherein the counter counts up to a threshold value that indicates that the ink tank is empty.
6. The printing apparatus to claim 5, wherein a count value previously stored in the counter is cleared before the counter starts counting.
7. The printing apparatus according to claim 4, further comprising a flag that is turned on when the amount of the reflected light is larger than or equal to the predetermined amount, and that is turned off when the amount of the reflected light is smaller than the predetermined amount, wherein the counter starts counting when the flag is turned on.
8. The printing apparatus according to claim 7, wherein the counter counts up to a threshold value that indicates that the ink tank is empty.
9. The printing apparatus according to claim 8, wherein a count value previously stored in the counter is cleared before the counter starts counting.